

DOCUMENT RESUME

ED 253 293

JC 850 067

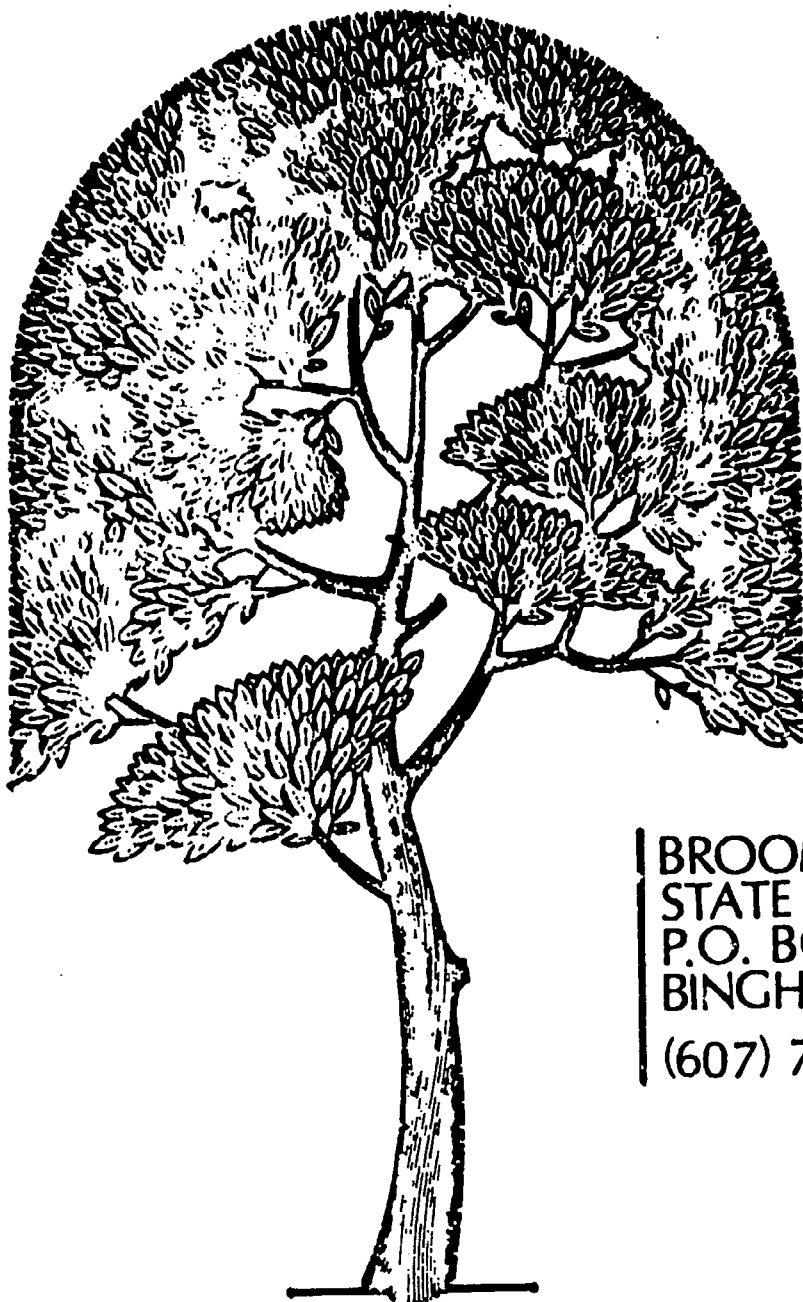
**AUTHOR** Romano, R.; Herbert, N.  
**TITLE** The Economic Impacts of the College on the Local Economy.  
**INSTITUTION** Broome Community Coll., Binghamton, NY. Inst. for Community Coll. Research.  
**PUB DATE** Jan 85  
**NOTE** 58p.; Reprint of a study report published in 1977. Study funded by the Broome Community College Alumni Association.  
**PUB TYPE** Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)  
**EDRS PRICE** MF01/PC03 Plus Postage.  
**DESCRIPTORS** Community Colleges; \*Economic Factors; Economic Research; \*Educational Economics; Models; Questionnaires; School Business Relationship; \*School Community Relationship; Two Year Colleges  
**IDENTIFIERS** \*Economic Impact; Economic Impact Studies

**ABSTRACT**

This economic impact analysis presents the methods and findings of a study of the short-term effects of Broome Community College on the local economy. Chapter I provides an introduction to the purpose of the study, and its research antecedents. After discussing the general research approach used in the study, chapter II presents the mathematical models used to assess economic impact with respect to local business, government, and individuals/jobs. In chapter III, data collection methods are examined, and information is presented on the reliability of the data and the incorporation of a "no college" assumption into the research design. Chapter IV analyzes results in terms of the dollar amounts arrived at for each model used, and provides further explanations of the economic models for determining impacts on local businesses, local governments, and individuals. Concluding remarks indicate that the total local business volume generated by college-related activities was estimated at \$10.7 million in 1975-76, and that if the college were eliminated, the local economy would lose an estimated \$16.5 million. Appendices provide further information on research methodology, charts, and the survey questionnaire. (LAL)

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## THE ECONOMIC IMPACTS OF THE COLLEGE ON THE LOCAL ECONOMY

A Study Conducted by R. Romano and N. Herbert  
and Funded by the BCC Alumni Association

Reprint Series  
No. 1 - 85

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No. 1 - 85

This study was conducted in the summer of 1976 and published early in 1977. It was widely distributed within the State University of New York and served as a model for a number of other studies by colleges within the SUNY system. Included among these were Rockland Community College, Dutchess Community College, Onondaga Community College, Genesee Community College, and SUNY-Binghamton.

The Institute for Community College Research at Broome Community College is reprinting the study in response to demand and as a tribute to former B.C.C President Peter Blomerley who first suggested that the study be undertaken.

Richard Romano  
Director Institute for Community  
College Research  
January, 1985

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## CHAPTER I     INTRODUCTION

Assessing the impact of a college on its local community is a complex task involving many dimensions which are unmeasurable. Broadly speaking, the impact may be viewed from two different perspectives: 1) the long-run; i.e., the effect on the product through the education and training of individuals; 2) the short-run; i.e., the immediate effect of college-related income and expenditures on the community. The first of these, although by far the most important, is beyond the scope of this study which concentrates exclusively on the short-run impact. It must be remembered throughout the course of this discussion, however, that the primary function of a college is to educate - to turn out knowledgeable, creative, productive, and responsible citizens. To the extent that it succeeds in this objective, a college benefits both the individuals who receive this education and the communities that they live in. Benefits to the individuals may be separated into pecuniary and non-pecuniary gains. Although the latter are for the most part very difficult to measure, there is a widespread belief that they exist. The motto of the State University of New York - Let Each Become All He Is Capable Of Being - embodies the feeling that not all the gains from education are either economic or measurable.

Measuring the individual's economic gains from education also presents difficulties. Even though it is easy to document that those with more education have higher life-time earnings, it is difficult to isolate the effect of education from other factors which affect earnings such as natural ability, motivation, sex, race, social background, non-formal education, labor market conditions, etc.



Recently a number of studies have been done which attempt to control for these other factors. This research views education as an investment in human capital, the return on which can be measured by the increase in earnings over an individual's lifetime. The general conclusions are that a primary school education can be expected to yield a 20-25% annual rate of return, a secondary education 15-20% and a 4-year college education 7-12%. Although nothing comprehensive has been done on the return to a community college education, there are some indications that it is at least as high as that for a 4-year degree.

It is evident that the pecuniary and non-pecuniary gains mentioned above benefit not only the individual but the community as well. The skills that students acquire in college lead to higher incomes and economic growth in the area. A college education can also be expected to lead to a more informed citizenry who make a greater contribution to local organizations, pay higher taxes (because of higher incomes), experience less unemployment, and demand less social service assistance. As a whole this group is less of a drain and more of an asset to local communities than those with a lower level of education.

The above discussion is intended to remind the reader that the primary function of the college is to meet the educational needs of the community. The short-run contribution of the college to the local economy is secondary in nature but nevertheless important because of the increasing costs of public higher education and the subsequent demands for accountability. As the reader makes his way through the data in this report, he should remember that the college was not founded as a means of bolstering the business activity of the local

area, even though it might make it a more attractive place to live and work and might be a factor influencing a firm's decision to locate in this area.

### Purpose

The purpose of this study is to inform the local community about the short-run effects of Broome Community College on the economy of Broome County. Certainly the main impact should be considered to be on the product - i.e., educated individuals, as stated above. However, an entirely different way of looking at the college is to view it as you would any other local industry. It provides jobs and contributes to the cash flow of the area in the same way that an IBM or an EJ does. By attracting new money into the County, in the form of state and federal aid to both the institution and its students, the college adds to the expenditure and income of the local area. On the other hand there are certain costs associated with education. These fall not only on individuals and their families but on the taxpayers as a whole. They may be direct, as in the case of increased taxes, or indirect, as in the case of a college occupying tax exempt property. Taking this cost-benefit approach, we will attempt to show to what extent the college was a contributor to or a drain on the economy of Broome County, during the college budget year of 1975-76.

### Background

Fortunately a guide has been developed for conducting this kind of research. In 1968 the Esso Foundation provided a grant to the

American Council on Education to develop a model that could be used to study the impact of colleges on regional economics. In 1971 the Council published Estimating the Impact of a College or University on the Local Economy, authored by John Caffrey and Herbert H. Isaacs. This document will be referred to often in this report and simply abbreviated ACE. The ACE model was tested by its developers on the Claremont consortium of colleges in southern California, and the results were included in the report. A number of other colleges have used this model which has set the standard format for conducting this kind of research. The ACE model has the advantage of being a practical guide to measuring the negative as well as the positive impact of a college on the local economy. Although as scholars it is possible to criticize the theoretical purity of some of the methods employed, we feel that these objections can be overlooked for the sake of practicality, without significantly affecting the results.

The complete ACE model seems better designed to measure the impact of a large university on an area smaller in size than Broome County. However, the model was recently modified to fit the community college in a study done at the Harrisburg Area Community College in Harrisburg, Pa. It has been necessary to modify the Harrisburg model somewhat to fit our own local situation. When the Harrisburg study is cited it will be abbreviated as HACC. Data from the ACE and HACC studies were used as guides when subjective estimates had to be made of items where we were unable to obtain the necessary local data.

Our thanks go out to the BCC Alumni Association for financing this study and the President of the College, Peter Blomerley, for

suggesting that it be undertaken. In addition to President Blomerley, the following advisory committee members provided valuable assistance:

Mr. Robert Landon - College Trustee  
Mr. Francis Norton - Broome County Legislature  
Mr. Harold Kammerer - Executive Director Broome  
County Chamber of Commerce  
Mr. Carl Miller - College Budget Officer

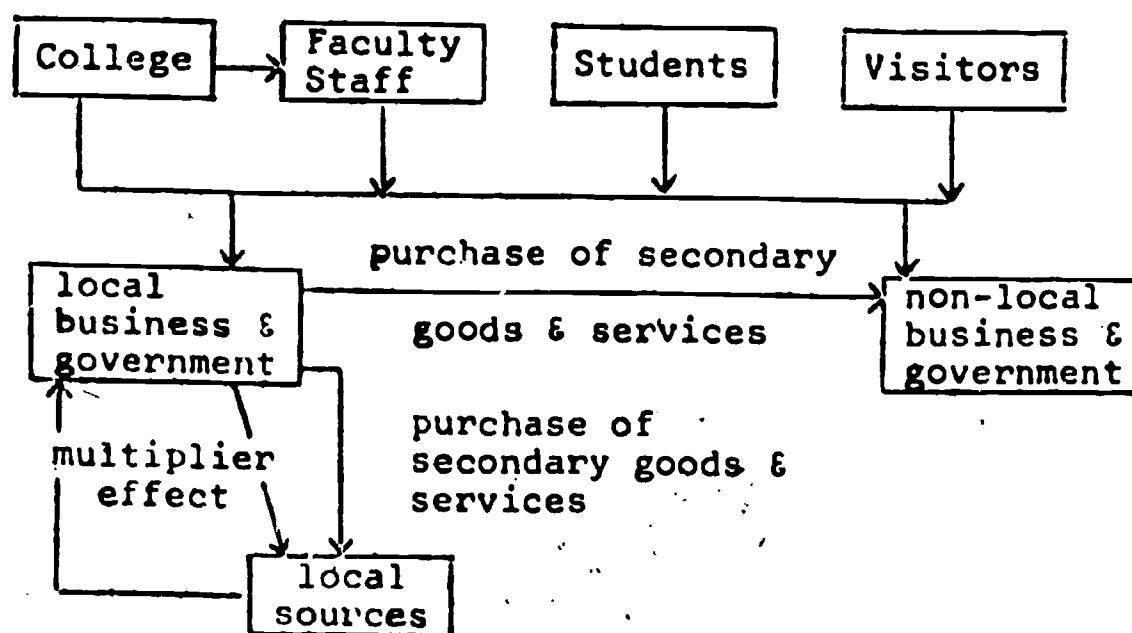
## CHAPTER 11 THE MODELS

### General Approach

This study isolates the impact of four different groups of spenders on the local economy. These four groups are 1) the college as an institution, 2) faculty and staff as private individuals, 3) students as private individuals and 4) visitors as private individuals. Each receive income from various sources, spending part of it in Broome County and part of it outside the county with the balance going into different forms of taxes and savings. We are concerned with the amount that is spent in Broome County, because this is the figure that can be translated into the sales generated for local businesses, taxes for local governments, and jobs for local individuals.

Figure 2-1 shows the general flow of expenditures by these four groups to the major segments of the local economy.

Figure 2-1



This simple diagram illustrates the important point that a portion of any initial increase in expenditures made in the local economy is recirculated locally, producing additional income and spending. Economic

research shows that this expenditure-income-expenditure recycling process will work most of its way through a local economy the size of ours in about one year's time. The value of this multiplier effect depends not only on the initial proportion of college related spending that is local, but also on factors such as the extent of imports from outside the County by local businesses of labor and other inputs; the saving preferences of local residents; the demographic characteristics of the County; and the industrial and commercial structure of economic activity. The more self-sufficient the County is, the greater the multiplier effect. For instance, we would expect that in an area that is close to major shopping centers (larger cities), a greater proportion of expenditures would leave the local economy thereby reducing the multiplier effect (the operation of the multiplier is illustrated in Appendix B).

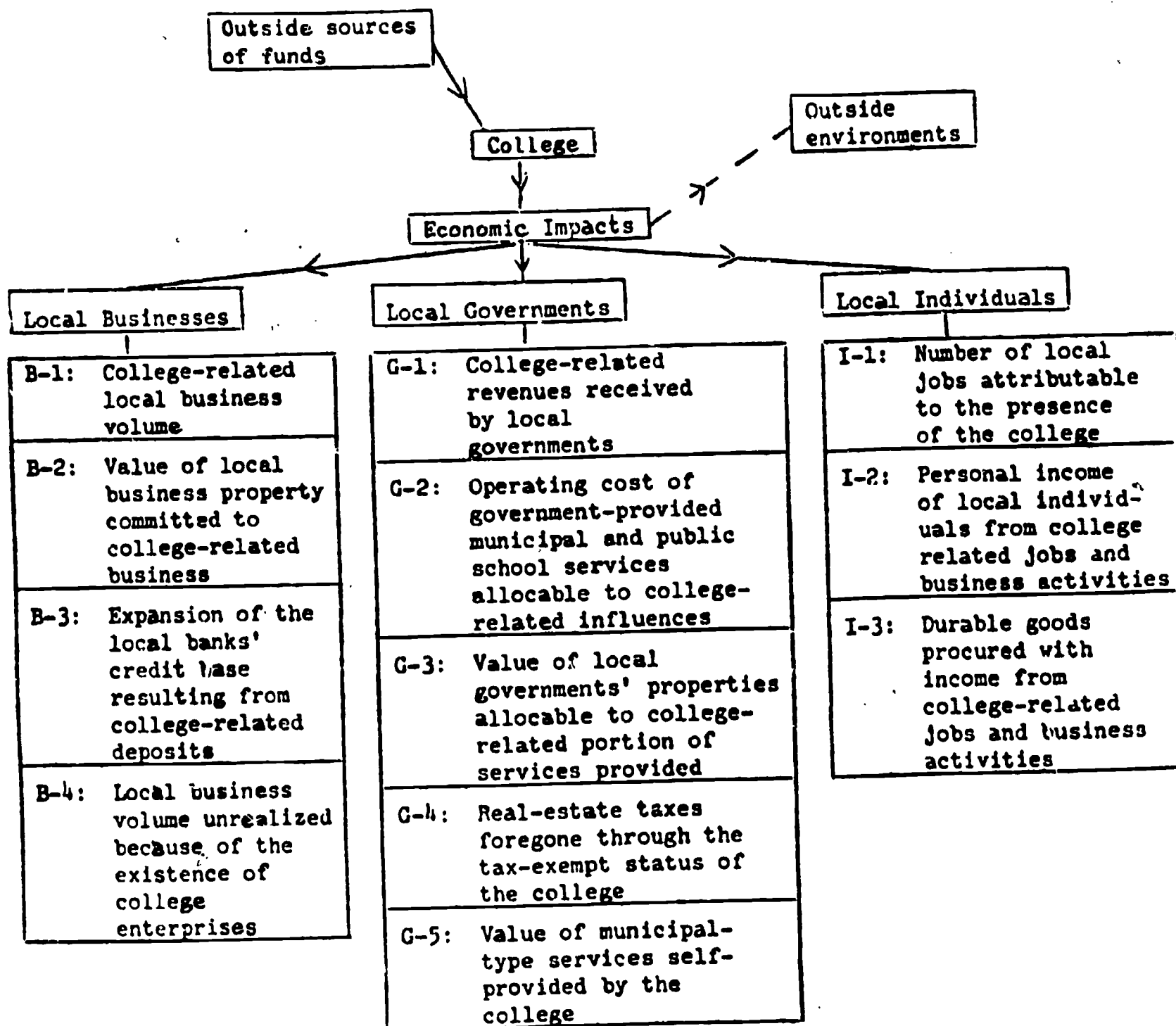
It would be possible to calculate an income-expenditure multiplier for Broome County by undertaking a detailed survey of the local economy and the pattern of local business purchases. We felt that this was impractical so we were forced to make a judgment on this matter. The ACE report suggests a multiplier for this kind of study somewhere in the 1.9 to 2.5 range. This means that an initial expenditure of \$1.00 would generate a total spending volume of between \$1.90 and \$2.50 over a one year period in the local economy. We have chosen a multiplier of 1.9 for this study, although we feel that it is probably an under-estimation. The major reason for this feeling is the fact that Broome County is fairly isolated from other major shopping areas. Our survey of faculty and staff spending habits indicates that on the average people do not do any major shopping outside of the County when compared with people in other areas of the United States. This finding is reinforced by our

data which shows that the faculty and staff who live outside the County typically buy their food, clothing, fuel oil, etc. from Broome County businesses. Based on the estimates of other studies and on the nature of our own economy, a multiplier value of 1.9 for Broome County is a conservative estimate that does not require a rigorous defense. Although the decision to choose a low value for the multiplier will reduce the positive magnitude of the figures we are about to present, it is our feeling that it is better to err on the low than the high side. It should be noted that our analysis also includes the conservative assumption that none of the spending that leaves the County re-enters it at any time. This certainly produces a multiplier effect which is lower than the actual one, since businesses outside the County certainly employ some local labor and buy other inputs from local firms.

The next several pages contain the equations that we used in obtaining the results in Chapter #4. They were taken from the ACE and HACC reports and modified to fit our local circumstances and data limitations. Figure 2-2 below shows the title heads of all of the Models suggested for use by the ACE report. Figure 2-3 shows the models that were used for the present study. Appendix A at the end of this report contains a detailed list of the items that were suggested but not used along with a brief explanation of why some of them were left out. On balance, the exclusions reduce the positive impact of our figures and again tilt the results of this study in a conservative direction.

Figure 2-2 - Models Suggested in the A.C.E. Study

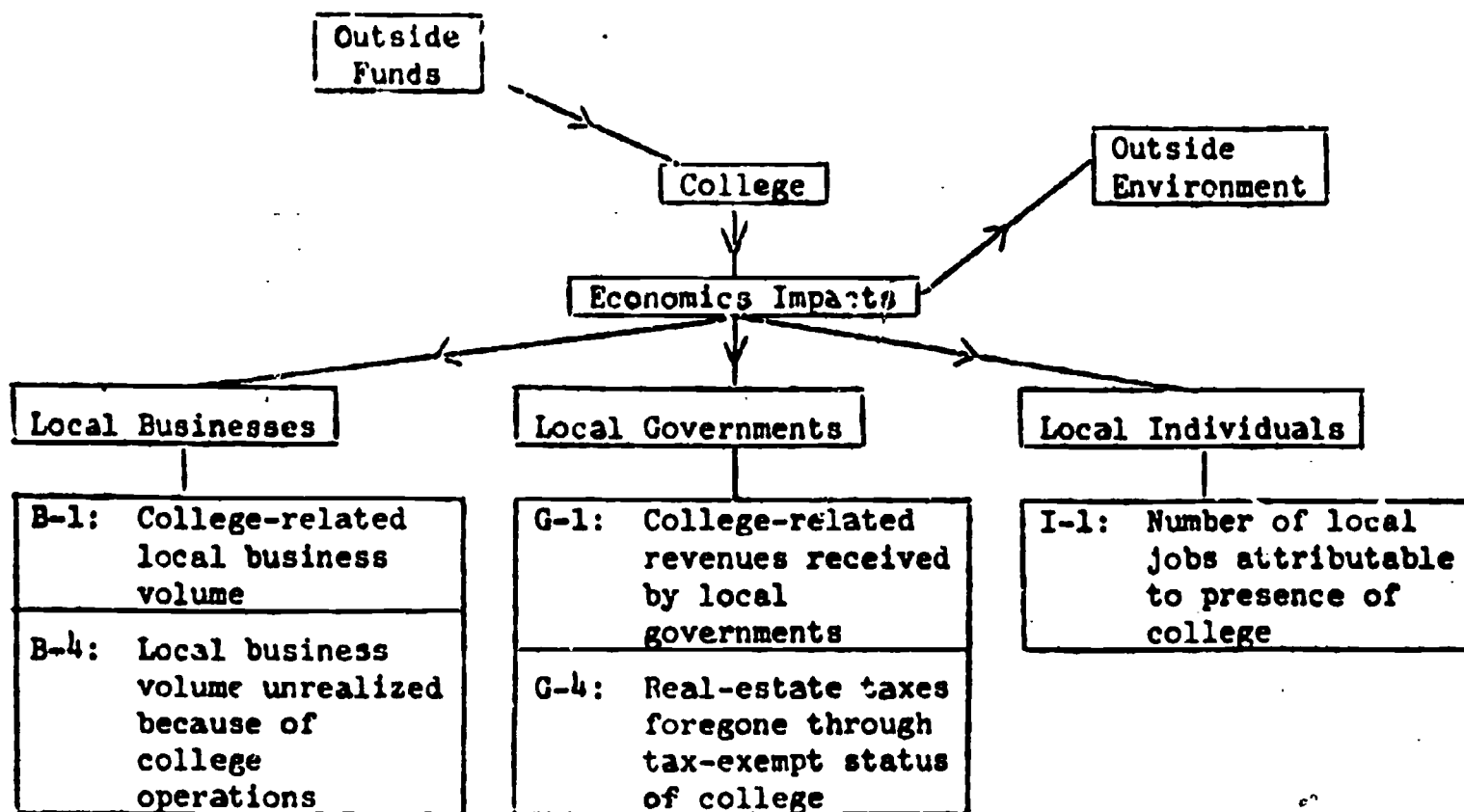
Economic Impacts on Local Businesses, Governments, and Individuals



John Caffrey and Herbert H. Isaacs, ESTIMATING THE IMPACT OF A COLLEGE OR UNIVERSITY ON THE LOCAL ECONOMY (Washington, D.C.: American Council on Education, 1971) p. 10.



Figure 2-3 - ACE Models Used in Broome Community College Study



## Models Used in BCC Study

### Local Business Models

#### MODEL B-1

$$BV_{CR}$$

College-Related Local Business Volume

$$BV_{CR} = (E_L)_{CR} + [(P_{LB})_{CR} + (BV_I)_{CR}]$$

$(E_L)_{CR}$  = college-related local expenditures (model B-1.1)

$(P_{LB})_{CR}$  = purchase from local sources by local businesses in support of their college-related business volume (reflected in multiplier value)

$(BV_I)_{CR}$  = local business volume stimulated by the expenditure of college-related income by local individuals other than faculty, staff, or students (reflected in multiplier value)

#### MODEL B-1.1

$$(E_L)_{CR}$$

College-Related Local Expenditures

$$(E_L)_{CR} = (E_L)_C + (E_L)_F + (E_L)_H + (E_L)_S + (E_L)_V$$

$(E_L)_C$  = local expenditures by the college (model B-1.1.1)

$(E_L)_F$  = local expenditures by faculty and staff (model B-1.1.2)

$(E_L)_H$  = local expenditures on faculty and staff health care from insurance (model B-1.1.3)

$(E_L)_S$  = local expenditures by students (model B-1.1.4)

$(E_L)_V$  = local expenditures by visitors to the college (model B-1.1.5)

#### MODEL B-1.1.1

$$(E_L)_C$$

Local Expenditures by the College

$$(E_L)_C = (e_L)_C (E_C - W_{F,S} - XF_C - R_C + FSA)$$

$(e_L)_C$  = proportion of total college expenditures that are local, excluding compensation, internal items, and taxes

$E_C$  = total college expenditures

$W_{F,S}$  = gross compensation to faculty, staff, and students

$XF_C$  = internal account transfers and payments

$R_C$  = taxes and other payments to governments

$FSA$  = total expenditures generated by faculty student association and student activity fees.

# MODEL B-1.1.2

$$(E_L)_F$$

Local Expenditures by Faculty and Staff

$$(E_L)_F = (E_H)_F + (E_{NH})_F + (E_L)_{NLF}$$

$(E_H)_F$  = expenditures by full time faculty and staff for local rental housing  
(model B-1.1.2.1)

$(E_{NH})_F$  = local nonhousing expenditures by local faculty and staff (model B-1.1.2.2)

$(E_L)_{NLF}$  = local expenditures by nonlocal faculty and staff (model B-1.1.2.3)

## MODEL B-1.1.2.1

$$(E_H)_F$$

Expenditures by Full-time Faculty and Staff for Local Rental Housing

$$(E_H)_F = (f_r) (R_L)_F$$

$f_r$  = number of full-time faculty and staff renting locally

$(R_L)_F$  = average yearly rent per faculty and staff renting local housing

## MODEL B-1.1.2.2

$$(E_{NH})_F$$

Local Nonhousing Expenditures by Local Faculty and Staff

$$(E_{NH})_F = (f_L) (e_{LNH})_F (NCI)_F$$

$f_L$  = proportion of faculty and staff residing locally

$(e_{LNH})_F$  = proportion of a consumer's total expenditures spent on nonhousing items  
in Broome County

$(NCI)_F$  = net college income of faculty and staff

## MODEL B-1.1.2.3

$$(E_L)_{NLF}$$

Local Expenditures by Nonlocal Faculty and Staff

$$(E_L)_{NLF} = (1-f_L) (E_L)_{NLF} (NCI)_F$$

$f_L$  = proportion of faculty and staff residing locally

$(E_L)_{NLF}$  = estimated proportion of nonhousing expenditures spent locally by each  
nonlocal faculty and staff person

$(NCI)_F$  = net college income of faculty and staff

MODEL B-1.1.3

$$(E_L)_H$$

Local Expenditures on Faculty and Staff Health Care from Insurance

$$(E_L)_H = E_h - A_e$$

$E_h$  = payment for hospital and medical insurance

$A_e$  = administrative expense for hospital and medical insurance

MODEL B-1.1.4

$$(E_L)_S$$

Local Expenditures by Full-time Students

$$(E_L)_S = (E_M)_{LS} + (E_H)_S + (E_L)_{NLS}$$

$(E_M)_{LS}$  = local expenditures by full-time students residing in Broome County (model B-1.1.4.1)

$(E_H)_S$  = expenditures by students for local rental housing (model B-1.1.4.2)

$(E_L)_{NLS}$  = local expenditures, exclusive of rent, by nonlocal students (model B-1.1.4.3)

MODEL B-1.1.4.1

$$(E_M)_{LS}$$

Local Expenditures, Exclusive of Room, by Full-time Students Residing in Broome County

$$(E_M)_{LS} = (S_L) (E_{lm})_S$$

$S_L$  = number of full-time students living locally

$(E_{lm})_S$  = average 9 month expenditure in Broome County, exclusive of room, per student of this type

MODEL B-1.1.4.2

$$(E_H)_S$$

Expenditures by Students for Local Rental Housing

$$(E_H)_S = (S_H) (E_h)_S$$

$S_H$  = number of students renting local housing

$(E_h)_S$  = average 9 month rental expenditure per student

MODEL B-1.1.4.3

$$(E_L)_{NLS}$$

Local Expenditures, Exclusive of Rent, by Nonlocal Students

$$(E_L)_{NLS} = (S_{NL}) (E_1)_S$$

$S_{NL}$  = number of nonlocal students

$(E_1)_S$  = estimated 9 month average local expenditures by each nonlocal student

MODEL B-1.1.5

$$(E_L)_V$$

Local Expenditures by Visitors to the College

$$(E_L)_V = (V_1) (E_1)_V + (V_2) (E_2)_V + \dots + (V_n) (E_n)_V$$

$(V_n)$  = estimated number of visits to the college by visitors in the  $n^{th}$  category

$(E_n)_V$  = estimated local expenditures by each visitor in the  $n^{th}$  category during each visit to the college

MODEL B-4

$$(BV_U)_C$$

Local Business Volume Unrealized because of the Existence of College Enterprises

$$(BV_U)_C = (I_{BV})_C$$

$(I_{BV})_C$  = income received by the college from the operation of on-campus college-owned business enterprises

Government Models

MODEL G-1

$$R_{CR}$$

College-Related Revenues Received by Local Governments

$$R_{CR} = (R_{ST})_{CR} + (R_Q)_{CR}$$

$(R_{ST})_{CR}$  = sales tax revenue received by local governments as a result of college-related local purchases (model G-1.3)

$(R_Q)_{CR}$  = other college-related revenues collected by local governments (model G-1.5)

MODEL G-1.3

$$(R_{ST})_{CR}$$

Sales Tax Revenue Received by Local Governments as a Result of College-Related Local Purchases

$$(R_{ST})_{CR} = (r_c) (k) \left[ (E_L)_{CR} - \left[ (E_L)_C + (E_{Lnt})_F \right] \right]$$

$r_c$  = rate of sales tax retained by County

$k$  = income-expenditure multiplier (1.9)

$(E_L)_{CR}$  = college-related local business volume (model B-1.1)

$(E_L)_C$  = local expenditures by the college (model B-1.1.1)

$(E_{Lnt})_F$  = local expenditures by faculty, staff and students for nontaxable items

MODEL G-1.5

$$(R_Q)_{CR}$$

Other College-Related Revenues Collected by Local Governments

$(R_Q)_{CR}$  = 1. assessment charges paid by the college

2. other local revenues

MODEL G-4

$$(RF_{RE})_C$$

Real-Estate Taxes Foregone through the Tax-Exempt Status of the College

$$(RF_{RE})_C = (G_C) (A_{FL})$$

$G_C$  = geographical area of the college

$A_{FL}$  = average property tax paid for class A farm land per acre

Individual (Jobs) Model

MODEL I-1

$$J_L$$

Number of Local Jobs Attributable to the Presence of the College

$$J_L = F + (j) \left[ (E_L)_{CR} \right]$$

$F$  = total number of full-time equivalent faculty and staff

$j$  = full-time jobs per dollar of direct expenditures in the local environment

$(E_L)_{CR}$  = college-related local expenditures (model B-1.1)

## Data Collection

Data was collected for this study by analyzing the 1975-76 College budget and other college records, as well as from State and County reports. The college budget officer and several County officials were especially helpful.

Information on faculty, staff, and student expenditures was obtained by questionnaires which were pre-tested, modified, and distributed in October, 1976. Although this was after the budget year under study, the questions were phrased so that answers could be based on the previous year's experience. In any case we would not expect the answers to vary much in percentage terms from one year to the next. (Copies of the questionnaires and a summary of the results can be found in Appendix C.)

Questionnaires were distributed to all faculty and staff through the College mail. The response rate from full-time faculty and staff was 62%; from part-time faculty it was 48%; the 21 part-time staff were not surveyed. Student questionnaires were distributed and collected in selected classes by faculty in the social science department. The 10% sample of the full-time students represents a good distribution of this population with respect to curriculum and place of residence. The Table below shows the number of questionnaires distributed and the number of usable responses.

Table 3-1

Number of persons included in the sample and the total population of persons in each major group.

<u>Group</u>	<u>Total number of usable responses</u>	<u>Number in population</u>	<u>%</u>
Full-time faculty & staff	199	321	61.99
Part-time faculty	30	62	48.39
Full-time students	266	2590	10.27

Note that part-time students were not surveyed. Although their tuition and fee expenditures are included in the figures we used from the college budget, we did not think it was reasonable to credit the college with any expenditures in the County beyond this amount. Although other studies of this nature include part-time students, we reasoned that the college could not take credit for the spending of a group of students who, for the most part, would be living and working in the County even if the College did not exist. To attribute a portion of their expenditures to the presence of the college would therefore inflate our results. Of course, to the extent that the college draws part-time students into the County, our figures underestimate the actual impact on the local economy.

#### Conservative Estimates and Reliability of Data

The exclusion of part-time students from this study illustrates the conservative approach that has been used. Our feeling was that the credibility of the data would be improved if we erred on the side of too little rather than too much. The choice of the income-expenditure multiplier as explained in the last chapter and all other figures for this study followed the same philosophy. For this reason the actual economic impacts are no doubt greater than this study suggests, and the figures presented here should be considered the minimum estimates. When this conservative approach is added to the fact that our data does not show the political, social, aesthetic, or educational impacts on the local community, it can be safely said that our dollar figures vastly underestimate overall the importance of the college to Broome County.

A number of cross-checks have confirmed our feeling that the data is as reliable as can be expected. Wherever possible we checked the answers



on the questionnaires with college and County records and with national expenditure patterns to make sure that they were reasonable. Our response rate and samples are good and the distribution of expenditures reported conforms with national averages and the results of similar studies. The major expenditure figures for the college, as well as the net income of the faculty and staff, were taken from the budget, vouchers, and payroll records of the college and should be considered reliable. The reliability of other items is commented on in the presentation of the results, but we are more than satisfied that the figures we have obtained are credible estimates of the local cash flow from the operation of the college.

#### The Models Again

As we have stated, the models through which the data was run were obtained mainly from the ACE report mentioned in Chapter #1. These models were modified to fit our local situation. In some cases two sets of figures are shown for the same model. The first and most important represent the "actual" impacts of the college in the 1975-76 budget year. The second takes into account what will be called the "no college assumption."

The major reason for undertaking this study was to estimate the "actual" cash flow generated by the college and college-related persons because this positive aspect of the college is not generally recognized. The ACE models were developed for this purpose, and for the most part do not incorporate the "no college" assumption. We wanted to include this assumption in our study even though the figures based on it are not as reliable as those we have labelled "actual." Their reliability is reduced by the necessity of a certain amount of guessing about what the economy

of the County would be like if the college did not exist. Occasionally the "no college" assumption was incorporated into the "actual" estimates and this added to the conservative bias of these figures. Leaving out the expenditures of part-time students and estimating the loss in property taxes from college owned property are cases in point.

In carrying the "no college" assumption further, we must also consider carefully the expenditures of full-time students. Much of this would be lost to the County if the college were eliminated, because students would leave the area to attend other schools. This would draw money out of the County, not only by the amount of student expenditures estimated, but also by the additional expenses incurred by their families in supporting a student living away from home. The savings of living at home and going to Broome Community College are considerable and most of these savings end up as increased expenditures in the local economy. Taxes saved due to the elimination of the County contribution in support of the college would also be reduced by the additional tuition, or "charge back fee," that the County must pay when its residents attend another community college in the State. We have made estimates of these and other costs of eliminating the college and have thus arrived at a crude and narrowly define figure which can be compared against the taxes that would be saved by eliminating the college.

## CHAPTER IV ANALYSIS OF RESULTS

This chapter gives the dollar amounts arrived at for each model outlined in Chapter #2. A summary table for the impact on business, government, and jobs in the area is presented along with a brief explanation of how the figures were calculated. The reader is urged not to study or quote these results without reading the explanatory material in the preceding chapters.

The impact on business represents the volume of local expenditures generated by the college and college-related persons during the 1975-76 budget year. This is by far the most important impact group in this study. If a single figure has to be quoted as representing the economic impact of the college on the local economy it should be the College-Related Local Business Volume (Model B-1), or the Total of lost local business volume due to the elimination of the college. Among the subdivisions of Model B-1 is the housing rental market for both faculty-staff and students. Housing mortgage expenditures are not included in these figures because for the most part they do not give rise to current income flows. Payments to local banks do, however, expand their credit base and allow additional local spending. Although an estimate of the expansion of the local banks credit base resulting from college-related deposits is always included in studies of this sort, we felt that this figure was too difficult to estimate accurately (see Appendix A for further explanation). Thus our figures have again underestimated the positive impact of the college on the business sector.

The impact on local governments is concerned solely with the County as a whole; we have not attempted to estimate the impact on individual smaller jurisdictions. The main item in this model is the amount of sales tax revenue generated by college-related expenditures. No attempt has

been made to estimate the amount of other taxes paid by college-related persons to local governments. Although the ACE report suggests that the impact on public school operating costs and increases in State and Federal school aid be included in the study, we found these figures too difficult to estimate in the time that we had. However, a careful examination of other studies convinces us that this omission was not a bad judgment. These figures show that the cost of providing school services to the children of college personnel is more than offset by the property taxes that they pay. We have therefore made the assumption that the costs and benefits from property taxes and other non-sales taxes paid to local governments are mutually offsetting. The exclusion of the additional taxes that are paid by local businesses for real property allocable to college-related business leads to an underestimation of property taxes resulting from the college's operation.

The impact on local jobs simply estimates the number of local jobs that can be attributed to the presence of the college. A multiplier effect is present here just as in the case of income and expenditures.

It should be noted that one cannot just add up all of the figures in this study to get one ultimate impact number. As mentioned above, if a single figure is to be quoted it is the one from Model B-1, or the final figure in the business "no college" assumption model.

ECONOMIC IMPACTS ON LOCAL BUSINESSES

<u>Expenditures Items</u>	<u>Estimated Actual Impact</u>
College-Related Local Business Volume (B-1) (includes multiplier effect of 1.9)	\$10,767,000
1. College-Related Local Expenditures (B-1.1) (initial impact)	5,667,000
(a) Local expenditures by the College (B-1.1.1)	651,000
(b) Local expenditures by faculty & staff (B-1.1.2)	2,119,000
Expenditures for local rental housing (B-1.1.2.1)	135,000
Local Non-housing expenditures by local faculty & staff (B-1.1.2.2)	1,775,000
Local expenditures by non-local faculty & staff (B-1.1.2.3)	209,000
(c) Local expenditures on faculty & staff health care from insurance (B-1.1.3)	123,000
(d) Local expenditures by full-time students (B-1.1.4)	2,759,000
Local expenditures, exclusive of room & board at home, by local students (B-1.1.4.1)	2,325,000
Expenditures by students for local rental housing (B-1.1.4.2)	266,000
Local expenditures by non-local students (B-1.1.4.3)	168,000
(e) Local expenditures by visitors to the college (B-1.1.5)	15,000
2. Local Business volume unrealized (B-4)	(13,000)

(all figures rounded to  
the nearest thousand)

# EXPLANATION OF BUSINESS MODELS

(figures rounded to the nearest thousand)

## Model

### B-1 College-Related Local Business Volume

$$BV_{CR} = (E_L)_{CR} + (P_{LB})_{CR} + (BV_I)_{CR}$$

$$\$10,767,000 \quad 5,667,000 \quad \times \quad 1.9 \text{ multiplier see explanation in Chapter 2 above}$$

## Model

### B-1.1 College-Related Local Expenditures

$$(E_L)_{CR} = (E_L)_C + (E_L)_F + (E_L)_S + (E_L)_V + (E_L)_H$$

$$\$5,667,000 = \$651,000 + 2,119,000 + 2,759,000 + 15,000 + 123,000$$

The calculation of these figures is shown below.

## Model

### B-1.1.1 Local Expenditures by the College

$$(E_L)_C = (e_L)_C \underbrace{(E_C - W_{F,S} - X_{FC} - R_C + FSA)}_{\$1,338,988}$$

$$\$651,000 = .486 \quad \$1,338,988$$

1. A 10% sample of the vendors file showed that the college bought 48.6% of its supplies & equipment from local businesses. A spot check of most major vendors confirmed that this figure was reasonable.
2. Total college expenditures,  $E_C$ , is the amount spent on equipment (\$217,372) plus contractual expenses (\$1,000,412) minus internal account transfers. (Payments to other governments for services; e.g., County Dept. of Public Works, Hinmans Corners fire dept.) To this we have added two expenditure items which are not included in the college budget: Expenditures by the faculty-student association and student government expenditures generated by the student activity fee (\$171,194) minus \$2,365 for depreciation and bad debts.

Model

B-1.1.2 Local Expenditures by Faculty & Staff

$$(E_L)_F = (E_H)_F + (E_{NH})_F + (E_L)_{NLF}$$

$$\$2,119,000 = 135,000 + 1,775,000 + 209,000$$

The calculation of these figures is shown below.

Model

B-1.1.2.1 Expenditures by Full-time Faculty & Staff for Local Rental Housing

$$(E_H)_F = (f_r) (R_L)_F$$

$$135,000 = 78 \times \$1739.00$$

1. The survey showed that 43 full-time faculty & staff out of 178 respondents rented in Broome County. Total full-time faculty & staff were 321 in 1975-76, therefore the ratio  $\frac{321}{178}$  times the 43 renters in the sample indicates 78 renters in the population.
2. The average yearly rent per person (\$1739) was calculated as follows:  
\$144.95 average rent per month (as shown by survey) x 12 months

Model

B-1.1.2.2 Local Non-housing Expenditures by Local Faculty & Staff

$$(E_{NH})_F = (f)_L (e_{LNH})_F (NCI)_F$$

$$\$1,775,000 = .894 \times .56 \times \$3,546,755$$

1. The survey showed that 89.4% of the faculty resided locally. This figure is confirmed by County records which show that 35 faculty & staff lived outside of Broome County.
2. The survey showed that faculty and staff who reside locally spent 56% of their after tax income on non-housing items in the local economy. It also showed that part-time faculty spent a higher percentage of their college income in the County, but to simplify the analysis the 56% figure was also used for this group.

Model B-1.1.2.2

3. The net or after tax college income of all faculty and staff was obtained by subtracting federal taxes, state taxes, and employees' social security from the personnel services budget as follows:

$$(\$4,598,071 - 643,730 - 202,315 - 205,271)$$

These figures were obtained from the college budget and a sample of monthly payroll figures.

Model

B-1.1.2.3 Local Expenditures by Non-local Faculty & Staff

$$(E_L)_{NLF} = (1-f_L) (E_L)_{NLF} (NCI)_F$$

$$\$209,000 = (1-.894) (.555) (\$3,546,755)$$

1. The survey showed that 10.6% of the faculty and staff lived outside of Broome County. But if you exclude housing expense (rent, or total mortgage payments), this group spent 55.5% of their income in Broome County. This is only  $\frac{1}{2}$  of 1% less than those who live in the County. Considering the relative size of Broome's mercantile establishment and that of the communities close to its borders, this small difference seems reasonable.

Model

B-1.1.3 Local Expenditures on Faculty & Staff Health Care from Insurance

$$(E_L)_H = E_h - A_e$$

$$\$123,000 = \$136,449 - \$13,600$$

1. The college budget shows that the County's contribution to health care was \$136,449. It was assumed that this was the amount that came back into the County to pay for the medical services of the faculty and staff, less 10% for administrative expenses.
2. Health insurance payments are the only fringe benefit included in this study. The amount paid out for social security, retirement, etc. was assumed to leave the County completely. These additional fringe benefits amounted to \$845,664, but we had no way of estimating how much of this was returned to the local area. This exclusion again underscores the conservative nature of our figures.



Model

B-1.1.4 Local Expenditures by Full-time Students

$$(E_L)_S = (E_M)_{LS} + (E_H)_S + (E_L)_{NLS}$$

$$\$2,759,000 = 2,325,000 + 266,000 + 168,000$$

The calculation of these figures is shown below. Only the local expenditures of full-time students is included. Non-tuition expenditures by part-time students are not included, because these were not generated by the presence of the college in Broome County. Expenditures by non-local part-time students were not estimated. To the extent that these exist, the figures are underestimated. These figures reflect the impact of actual expenditures. A corrected figure for the "no college" assumption is presented later.

Model

B-1.1.4.1 Local Expenditures, Exclusive of Room & Board at Home, by Local Students

$$(E_M)_{LS} = (S_L) (E_{lm})_S$$

$$\$2,325,000 = 2327 \times \$999.00$$

1. The average number of full-time students for the 1975-76 year was 2590. The survey showed that 239 out of 266 were local students

$$\therefore 2590 \times \frac{239}{266} = 2327$$

2. The survey showed that miscellaneous expenditures by students averaged \$111.00 per month. This was multiplied by 9 months, since it was reasoned that students would be home the other 3 months of the year if they had gone away to school. This figure is a good deal below the national averages for student non-housing expenditures.

Model

B-1.1.4.2 Expenditures by Students for Local Rental Housing

$$(E_H)_S = (S_H) (E_h)_S$$

$$\$266,000 = 321 \times \$828.00$$

Model B-1.1.4.2

1. The survey sample showed that 33 students rented housing in Broome County. Extrapolating from this we obtained a total figure of 321.
  2. The survey showed that the average monthly rent for student housing was \$92.00. A nine-month year was assumed. This figure conforms with national estimates of student rental expenditures.
- 

Model

B-1.1.4.3 Local Expenditures by Non-local Students

$$(E_L)_{NLS} = (S_{NL}) (E_1)_S$$

$$\$168,000 = 263 \times \$639.00$$

1. The survey showed that the number of non-local students (those commuting to the college from outside the County) in 1975-76 was 263. This does not conflict with college records which showed that 570 students are from out of the County.
  2. The survey showed that the average local expenditure per month for this type of student was \$71.00. A nine-month year was assumed.
- 

Model

B-1.1.5 Local Expenditures by Visitors to the College

$$(E_L)_V = (V_n) (E_n)_V$$

$$\$15,000 = 1878 \times \$8.00$$

1. Figures on the number of visitors coming to the college from outside the County were drawn from three different sources; athletic teams, bookstores and other sales personnel, and administrative and classroom visitations. Figures for the athletic teams are fairly reliable and show that 1878 visiting team members and related persons came into Broome County in 1975-76. The rest of the visitors were divided about equally between the other two categories. The major item that is not included in the number of parents who visited the college from outside the County. Students who live outside the County and State no doubt brought their parents and friends into the County especially at times such as the start of the school year and graduation. Since we did not have any reliable figures on these visits we left them out. The resulting figure is certainly underestimate

Model B-1.1.5

2. A figure of \$8.00 was used as the expenditure for each visitor while in the County. This is the daily allowance for meals allotted for our own athletic players when they leave the County. Eight dollars seemed like a reasonable figure since some visitors will spend more, particularly when they stay overnight, and some will spend less.
- 

Model

B-4 Local Business Volume Unrealized because of the Existence of College Enterprises

$$(BV_U)_C = \$13,000$$

1. The figure is small because the college cafeteria and vending machine operations are run by local businesses. We did not think that textbook purchases by students should be counted since these would not exist if the college were not here. The \$13,000 is a combination of the bookstore revenue from non-textbook items (\$2957.00) and a percentage of the profit paid by the vending machine operator to the Faculty Student Association.

ECONOMIC IMPACT ON LOCAL BUSINESSES

("no college" assumption)

<u>Expenditure Item</u>	<u>Estimated Impact</u> (all figures rounded)
1. Local expenditures by the college	(\$651,000)
2. Local expenditures by faculty and staff plus health expenditures	(\$2,242,000)
3. Local Expenditures by students	(\$2,069,000)
4. Local expenditures by visitors to the college	(\$15,000)
5. Additional expenditures of local families to support students going to college out of the County	(\$4,000,000)
<hr/>	
Net volume of expenditures lost to the local economy (initial impact)	(\$8,977,000)
Net local business volume lost (includes multiplier effect of 1.9)	(\$17,056,000)
6. Reduction in taxes due to elimination of the college	\$1,424,000
plus: reduction in taxes due to private use of college property	700
less: increase in chargebacks paid to other counties for local student attending other community colleges	(\$1,130,000)
<hr/>	
Net gain (initial impact)	\$295,000
Net gain (multiplied impact)	\$561,000
<hr/>	
Total of lost local business volume due to elimination of the college	(\$16,500,000)

## EXPLANATIONS OF BUSINESS MODELS UNDER "NO COLLEGE" ASSUMPTION

The purpose of these figures is to estimate the lost business volume in Broome County that would result from the elimination of the college. The figures are taken from the business models just explained with the following adjustments and explanations:

1. Local expenditures by students was reduced by 25%. Our survey showed that almost 11% of our full-time students would have been working if BCC did not exist. An additional 16.9% said that they would have gone to Harpur College. We rounded the latter figure to 15% since we felt that some of them would not have been admitted and would have gone to school outside the County. We therefore reasoned that about 25% of our students and their expenditures would have remained in the County. These figures conform nicely with State figures and other estimates made in this study.

2. Faculty and staff expenditures were not reduced in the same manner as student expenditures because even though some faculty would no doubt remain in the local area, they would be employed in jobs presently held by others. In other words the jobs at the college are additional ones creating additional income in the local economy.

3. Four million dollars is the estimated amount of family income that would leave the area to support students going to colleges outside the County if BCC were not in operation. Using the above explanation that this would involve around 75% of our full-time students (approximately 2000 students), we then multiplied this number by \$2000 which was based on the following calculations.

The average cost of going to school outside the County was figured at \$3500.00 per year, which includes room, board, tuition, travel and

other expenses. This figure is based on the student cost of going to Harpur College (using their figures), which is lower than other metropolitan areas of the State, and national estimates of the 1975-76 costs for attending public colleges. The \$3500 figure was reduced to \$2000 per student to take into account the proportion of college costs met by outside financial aid and certain other items which were already counted in the figure for student expenditures. Looking at this from another perspective you can say that the \$3500 figure is reduced by \$1500 in the following way. Students reported average expenditures in the local economy of \$1000.00 for a nine month year, exclusive of room and home board. This amount is already taken account of in the figure for student expenditures. In addition the average amount of student financial aid is \$500 a year. These figures would be about the same if students attended other colleges, and therefore the \$2000 is an additional cost of attending a college outside of the County. This \$2000 figure is conservative because it assumes that none of our students would have attended private schools. In our survey 17% of our students said they would have gone to such schools, if they had not come to BCC. Although this figure is probably too high, there is no doubt that some of our students would have selected more expensive private schools, thus increasing the outflow of income from the County.

The cost of sending roughly 2000 students to school outside the County would thus drain a substantial amount of private as well as public funds out of the area and would result in a reduction of business to local establishments as well as taxes to local governments.

4. A multiplier of 1.9 was applied to the expenditure as well as the tax items even though the multiplier for the latter is slightly less. This adjustment makes the final figure of \$16.5 million an underestimation

ECONOMIC IMPACTS ON LOCAL GOVERNMENTS

(all figures rounded)

<u>Impact Item</u>	<u>Amount</u>
A. College-Related Revenues Received by Local Governments (G-1)	\$284,000
1. Sales tax revenue from college related purchases (G-1.3)	227,000
2. Other revenue to governments (G-1.5)	57,000
3. Public school costs, increase in State and Federal aid to public schools, addition to municipal service costs, and taxes paid by persons associated with the college.	Not estimated. (See explanation under Model G-1.3 below.)
B. Real-Estate taxes foregone through tax-exempt status of the college (G-4)	(700)

# EXPLANATIONS OF GOVERNMENT MODELS

(figures rounded to the nearest thousand)

## Model

### G-1 College Related Revenues Received by Local Governments

$$R_{CR} = (R_{ST})_{CR} + (R_Q)_{CR}$$

$$\$284,000 = 227,000 + 57,000$$

The calculation of these figures is shown below.

## Model

### G-1.3 Sales Tax Revenue Received by Local Governments as a Result of College-Related Local Purchases

$$(R_{ST})_{CR} = (r_c) (k) \left[ (E_L)_{CR} - [(E_L)_C + (E_{Lnt})_F] \right]$$

$$\$227,000 = (.03) (1.9) \left[ 5,667,000 - [651,000 + 1,029,000] \right]$$

1. Local expenditures by faculty, staff, and students for non-taxable items  $(E_{Lnt})_F$ , was calculated by multiplying the non-housing expenditures of these groups by 23 percent, which is the adjusted Bureau of Labor Statistics figure for the proportion spent on food. Basically we have estimated expenditures for these groups spent in Broome County less housing and food.
2. Although persons associated with the college paid other taxes to local governments, sales tax revenue was the only one calculated. This is because we felt that the estimates of property and other taxes paid which we could have obtained would have had a high margin of error.

In order to assess the tax impact of college-related persons on local governments, you need to consider not only the additional taxes paid but also the cost of public school and other services provided these persons. These figures were not readily available, but their omission does not bias the study because in other studies, where these figures were calculated, we found that the additional revenues and costs offset each other. Sales tax revenues were thought of as additional revenues to local governments, because we did not feel that municipal services would be reduced if the college did not exist.



Model

G-1.5 Other College-Related Revenues Collected by Local Governments

$$(R_Q)_{CR} = \$57,000$$

1. This includes the amount paid to the Broome County Dept. of Public Works, the amount for self-insurance, for FSA water and electric expenses, and for fire protection.
- 

Model

G-4 Real-Estate Taxes Foregone Through the Tax-Exempt Status of the College

$$(R_{RE})_C = (G)_C (A_{FL})$$

$$\$694.00 = 115 \times \$6.04$$

1. The average County and municipal tax was calculated by first finding the real value of the college property (\$36,800), which was based on the State recommended value for Class A farm land (\$320.00 per acre). This figure was obtained from the agricultural extension office. Taking the county tax and equalization rates, we then calculated that the County lost \$236 in 1975. The figure for property taxes lost to other governments (\$458) was based on the average tax and equalization rates for Vestal, Union and the City of Binghamton.
2. Some might object to the low figure for this model, reasoning that the college occupies valuable property which has a greater tax value than that used in this study. Our use of the Class A farm land figure followed this reasoning. Before the college was built, its property was publicly owned farm land. If the college had not been built, the property might have been sold to a residential developer. However, this would not have resulted in more houses being built in the County, since the additional homes on this property would have been offset by those which were not built somewhere else in the County. In order for this property to have added significantly to the tax base, you would have to assume that the availability of land would have drawn more people or industry into the County. This seems unlikely when you consider that a good deal of commercial and residential property remains undeveloped. The conclusion, then, that the tax-exempt status of the college property has not reduced overall governmental income by very much seems to be a reasonable one.

# APPENDIX A

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To the models recommended in the ACE report, we add the following information on public funds flowing into the local economy in 1975-76 due to the presence of the college.

## Sources of Public Funds

<u>County</u>		<u>Outside</u>	
1) Local share of operating costs	\$1,319,465	1) State aid	\$2,710,695
2) Interest charge on capital debt (1976)	<u>103,366</u>	2) Federal aid	373,392
Total	\$1,422,831	3) Tuition from other counties in lieu of local sponsor share (485 students x 450)	218,354
		4) State and Federal student scholarships and loans	<u>1,186,628</u>
			\$4,489,069

This shows that for every dollar the local sponsor puts up to support the college, more than three dollars is obtained from other governmental sources. This figure would be higher if we included private sources of funds such as the College Foundation and tuition money paid by students from outside the State (\$55,240).

## Sources of all College Revenues (public & private)

If we examine the operating budget of the college we find that 19% of the total revenues came from the local sponsor. If we add to this the amount contributed by tuition from local students (adjusted for outside financial aid), we find that only around 30% of the total college budget comes from local sources. This leads to the conclusion that the large contribution to the local economy made by the college is largely due to its ability to draw 70% of its revenue from sources outside the County.

(See Appendix B for a graphic illustration.) 42

## County Budget (no college assumption)

The following table is a rough estimate of the impact on the County budget of eliminating the college.

### Impact on County Budget of "No College" Assumption

(most figures rounded)

<u>Addition to revenue or lowered expenditure</u>		<u>Additional Costs or lost revenue</u>	
1) Increase in property tax revenue	\$ 700	1) Lost sales tax revenue	\$ 352,000
2) County contribution to college	1,319,465	2) Additional charge-back payments to other counties	<u>1,130,000</u>
3) Interest charge on college capital debt (1976)	<u>103,366</u>		<u>\$1,482,000</u>
	\$1,423,525		

1. The first two items on the left side of the table are explained elsewhere in this study. Although some might object to the low figure for lost property taxes, we feel that the assumptions underlying it are reasonable. In any case, if you increased this figure to \$10,000 or \$20,000 it would not change the conclusion illustrated by the above table.

2. Lost sales tax revenue is the sum of model G-1.3 (\$227,000) and the loss resulting from the flow of private expenditures that would leave the County in support of students attending other colleges (\$125,000). (See explanations under Impact on Local Businesses "No College" Assumption.)

3. The additional chargeback payments to other counties is an estimate of how much more the local sponsor would have to pay to other counties if students from Broome County attended their community colleges. To get an estimate of the number of students in this category we reasoned that 24% of the 1975 graduates of Broome County high schools would have attended other community colleges if BCC did not exist. This figure was taken from State reports which show that this is about the percentage of students who attend community colleges in the surrounding counties that do not have colleges. The statewide average from 1975 was 24.6%. This calculation gave us 947 students for the freshman class and 631 students for the senior class, based on our experienced attrition rate of 33%. From the 1578 total we subtracted the 231 Broome County students who are already attending other community colleges and multiplied the resulting 1347 number by the adjusted average chargeback rate (\$838.00) the sponsor is now paying for these 231 students. The actual average chargeback rate is \$925.00 but we adjusted this by eliminating the 21 students who not attend the Fashion Institute of Technology and cost Broome County \$1800 a year each. Eliminating the highest chargeback fee gives us the conservative but

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realistic figure of \$838.00 per student ( $1347 \times \$838 \approx \$1.13$ -million). The additional chargeback fees that would have to be paid if BCC did not exist just about equals the local sponsor's share of the college operating costs. If we include the lost sales tax revenue we can see from the table that closing the college would not save the County any money.

### INDIVIDUAL (JOBS) MODEL

#### Model

I-1 Number of Local Jobs Attributable to the Presence of the College

$$J_L = F + (J) \left[ (E_L)_{CR} \right]$$

$$790 = 337 + (.00008) (5,667,000)$$

1. The number of full-time equivalent jobs created by the presence of the college is not just the employment in the college itself, but also the number of jobs created by college-related expenditures in the local economy. The crucial .00008 figure obtained from the ACE report represents the average man-years of employment per dollar of these college-related expenditures. In other words, 80 man-years are associated with each \$1 million of local expenditures. The figure of 80 takes into consideration the amount of work created not only by the initial but also by the second-round series of expenditures.

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### CONCLUDING REMARKS

This study has presented an estimate of the immediate short-run impact of the College on the economy of Broome County as it pursues its primary objective of meeting the educational needs of the community.

It has been demonstrated that the college is an economic as well as an educational asset to the area. This is mainly due to the fact that most of the funds for its operation come from outside the County and a high proportion of these funds are spent and respent in local business establishments. The total local business volume generated by college-related activities was estimated at \$10.7 million dollars in the 1975-76 academic year. Additionally, it was estimated that if the college were eliminated, the local economy would lose \$16.5 million dollars. This higher figure is due to the fact that local families would be spending an additional \$4 million dollars outside of the County to support their sons and daughters at other colleges.

From a tax perspective, the local County's share of the college's operating costs, \$1.3 million in 1975-76, is deceptively high because if the college were eliminated the County would not only lose the tax revenue generated by college-related purchases in the County, but also in accordance with State laws would have to pay additional fees to other counties in support of local students attending their community colleges. When these additional costs are taken into consideration, the cost to Broome County of operating the college is nil.

## APPENDIX A

### Omissions From ACE Format

The ACE report contains a comprehensive set of expenditure items which can be included in an economic impact study. Many of these were not estimated in this study. Items were eliminated for the following general reasons: 1) They were not relevant to the Community College; 2) They were not relevant to the Broome County area; 3) Data was not available or did not justify the time of collection; 4) They were judged on a priori grounds to be of little meaning or magnitude.

### Items from ACE Model Not Included in B.C.C. Study

1. Local expenditures by local fraternities, sororities, and other student living groups.
2. Value of local business property committed to College-related business (includes inventory, real and non-real property).
3. Expansion of local banks' credit base resulting from College-related deposits.
4. College-related real-estate taxes paid to local governments (includes college, faculty & staff, fraternities, etc., and taxes paid by local businesses for real property allocable to college-related business).
5. College-related property taxes, other than real-estate, paid to local governments (includes college, faculty & staff, and business as in item 4 above).
6. State aid to local government allocable to the presence of the college (includes local public school aid, and other per capita, service unit, or tax-unit aid).
7. Operating costs of local government-provided municipal and public school services allocable to College-related influences.
8. Value of local government's properties allocable to College-related portion of services provided.
9. Value of municipal-type services self-provided by the College.
10. Personal income of local individuals from college related jobs and business activity.
11. Durable goods procured with income from College-related jobs and business activities.



## APPENDIX A

Item 3. A secondary effect resulting from the economic activity of the college and college-related persons is the expansion of the credit base of local banks resulting from the deposits by the college, its personnel, and the business activity they generate. In order to get this figure we would have had to estimate the time and demand deposits of faculty, staff, students, and businesses. We felt that this was too difficult to do and thus excluded this item. The fact that Broome County is also a surplus funds area also means that the credit expansion would not take place in the local economy. For comparison purposes, however, the HACC study valued this item at \$436,474 for 1970-71. This is surely too low for our college since the Foundation and Alumni deposits alone would exceed that amount.

### Items 4, 5, 6, 7.

The County and other local governments incur additional public school and municipal service costs because of the presence of college-related persons. On the other hand these governments receive tax revenues from these people. We felt that the estimates we could have made on these items would not have been very reliable. However, this only biases our results in a conservative direction, because we found that in the other studies the revenue items (#4, 5, 6) more than offset the expenditure item (#7). That is, the additional property taxes and state aid to schools was greater than the additional operating costs of elementary and secondary schools and municipal services for college-related persons. Payments for fire protection and to the County public works department were subtracted from the total college expenditures in the business mode (see Model B-1.1.1). The only County revenue estimated was the sales tax revenue generated by the influence of the college. (See further explanation in government models section of Chapter #4.)

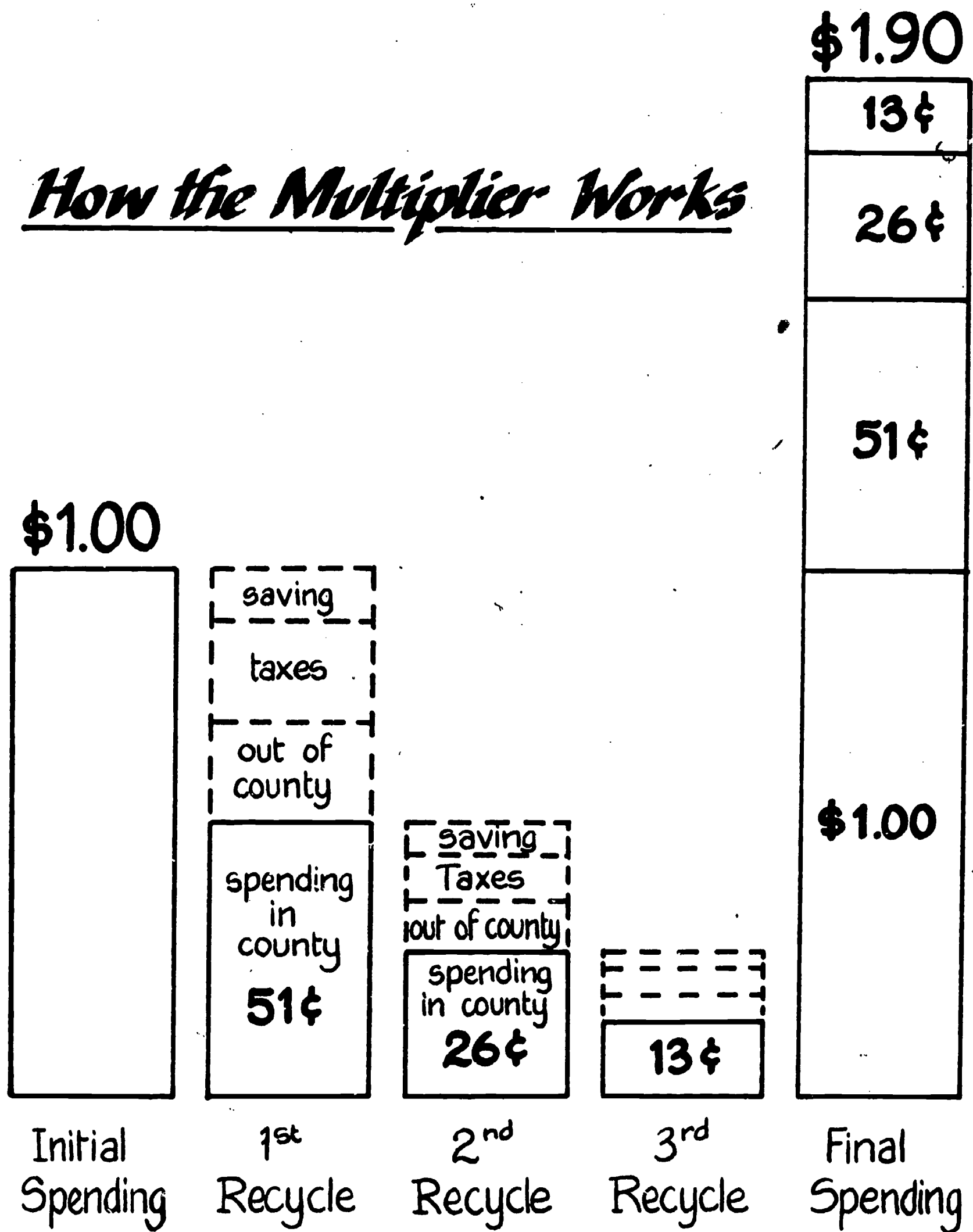
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## APPENDIX B

### Charts

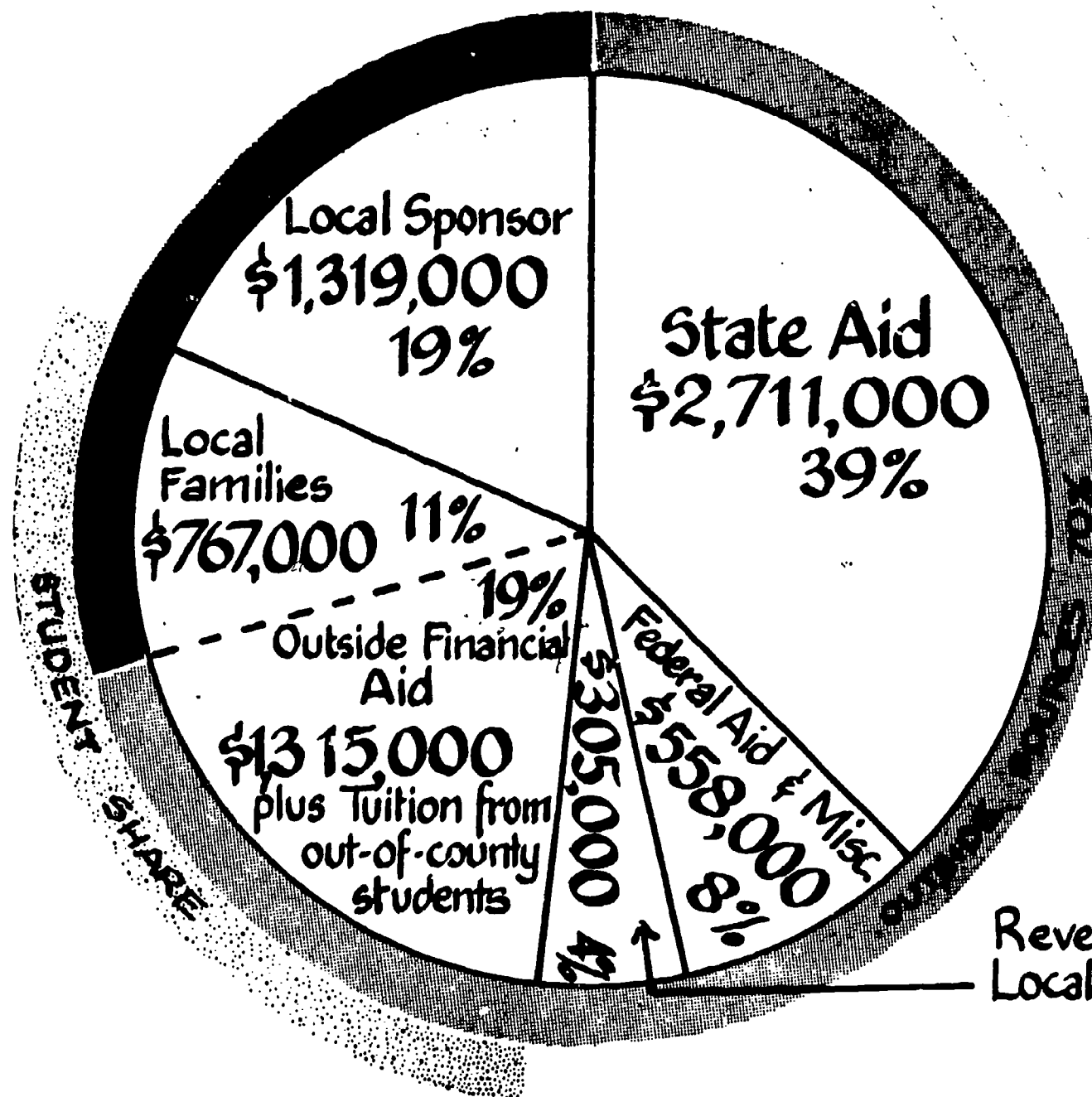


# How the Multiplier Works



# College Budget

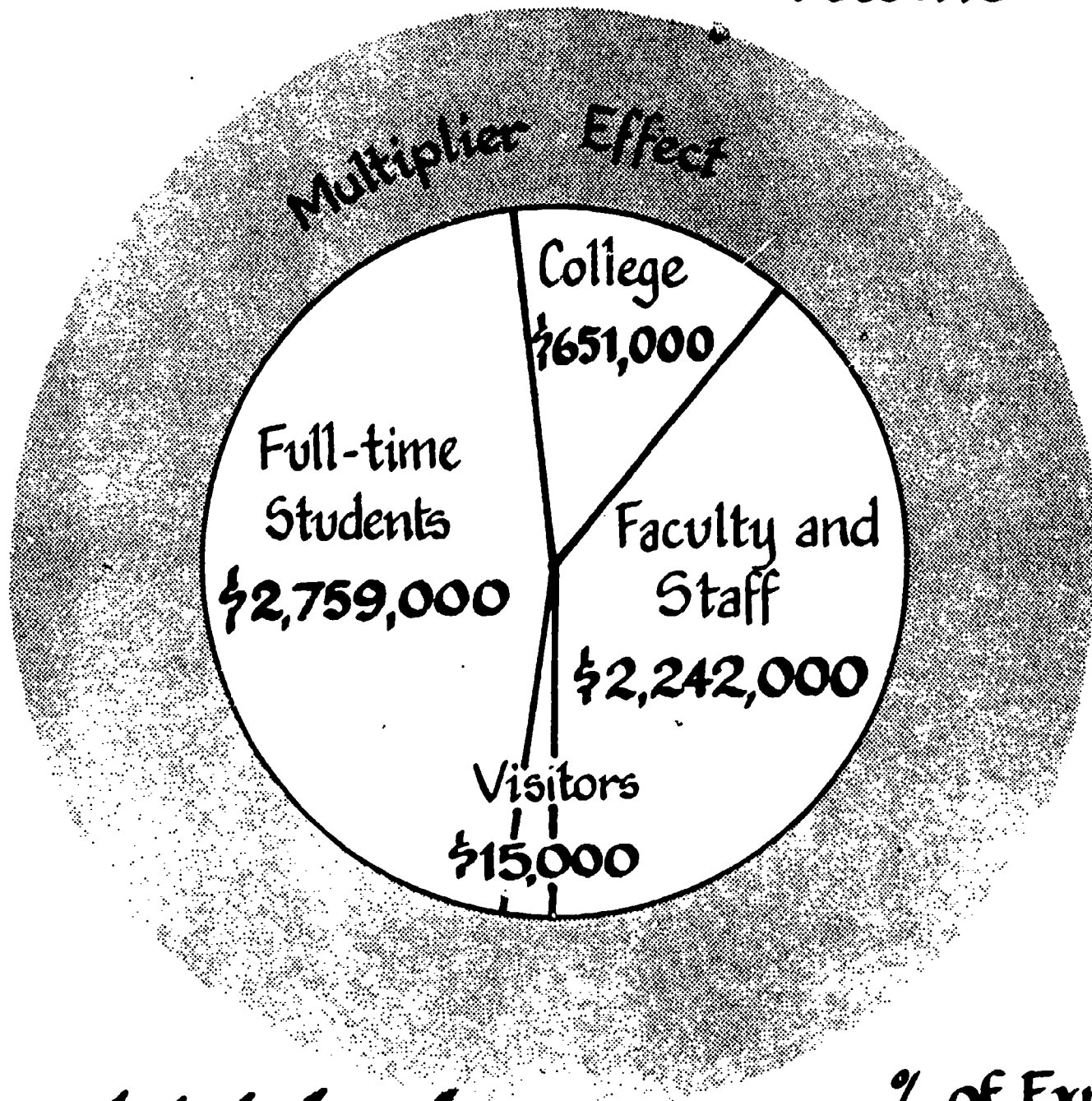
## Local vs Other Sources of Revenue 1975-76



Revenue in lieu of  
Local Sponsor Share

# Actual Impact of College-Related Local Expenditures 1975-76

*\$10,767,000 total local business  
volume*



*Estim. total local  
business volume  
1976-77 : \$12.1 million*

*% of Expenditures  
in the County*

Category	Percentage
College	49%
Faculty & Staff	56%

*(non-housing, after tax)*

# Loss to Local Businesses of Eliminating the College

**\$16,500,000**

*Multiplied Effect  
(less saving)*

*College Expenditures \$651,000*

*Faculty & Staff Expenditures  
\$ 2,242,000*

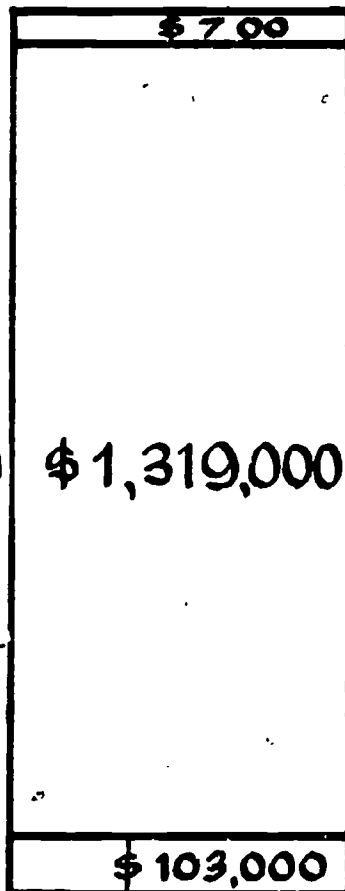
*Full-Time Student Expenditures  
\$ 2,069,000*

*Out-of-County College Expenses  
\$ 4,000,000*

# Impact on County Budget of Eliminating the College (1975-76)

*Added Revenue* \$1,423,000

Increase in  
Property Tax

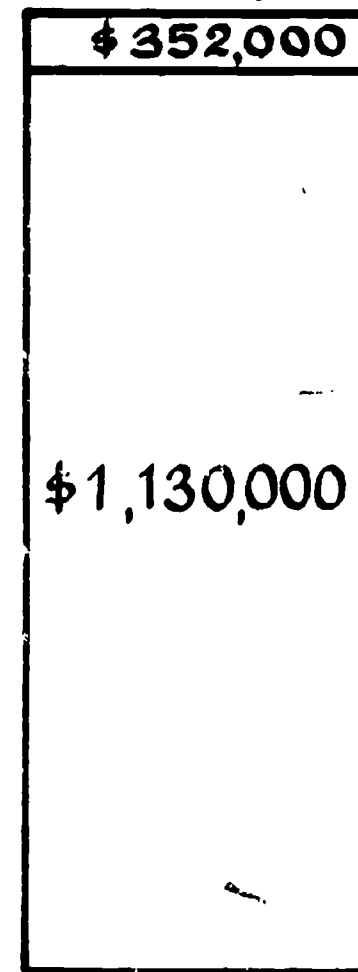


County Contribution \$ 1,319,000

Interest on  
Capital Dept.

*Added Cost* \$1,482,000

Lost Sales Tax  
Revenue



Additional  
Charge-backs for  
Community College  
Students

APPENDIX C - COPY OF QUESTIONNAIRE USED IN SURVEY

BROOME COMMUNITY COLLEGE

SURVEY TO STUDY EFFECT OF COLLEGE ON LOCAL ECONOMY

Faculty & Staff Questionnaire  
(do not sign your name)

Full-time - 199  
Total responses.

The college is collecting data which will show the economic impact of the college on the local economy. A high response rate will make our figures more reliable. Your information will be grouped with the responses of other individuals so that it is totally anonymous.

1. Where is your local residence?

178 ☐ in Broome County (go on to question #2)

21 ☐ outside Broome County (please answer question #5 next)

2. Do you:

43 ☐ rent? (Please give monthly rent \$ 144.95 ) (\$1739/yr.)

135 ☐ own your own home or live with others without paying rent?

3. What percentage of your income (single persons should exclude parents after taxes is:

1) spent on housing 20 %

2) saved 13.5 %

3) spent outside Broome County 10.3 %

4) spent inside Broome County 56.2 %  
(must be remainder)

All 4 must  
equal 100%.

4. Would you be living in Broome County if you were not working at Broome Community College?

☐ Yes.

☐ No.

Answer the next question only if you are not living in Broome County.

5. What percentage of your yearly (day & night) college take home pay (average check x 26) do you spend in Broome County (include food, gas, and other items that you purchase from Broome County businesses; don't forget those that you buy for your home)? 55.5 %

Thank you for your assistance. Deposit in response box if available in your building or fold and send to Norm Herbert or Dick Romano in Liberal Arts. The results will be available by January 1977.



APPENDIX C - COPY OF QUESTIONNAIRE USED IN SURVEY

BROOME COMMUNITY COLLEGE

SURVEY TO STUDY THE EFFECT OF COLLEGE ON LOCAL ECONOMY

Student Questionnaire  
(do not sign your name)

Full-time - 266 Total  
Responses

1. This term I am a:

266 ☐ Full-time student (12 credits or more)

☐ Part-time student (less than 12 credits)

2. During this term I live:

239 ☐ in Broome County

27 ☐ outside of Broome County (skip question #3)

3. Do you:

206 ☐ live in own, parents' or friends' home without paying rent?

33 ☐ rent within Broome County?

Please give monthly rent (or your share of it) \$ 92.  
(\$828./9 months)

4. Please estimate your monthly spending in Broome County except for rent. \$ 111.00

5. If BCC was not here would you now be:  
(check one)

$\frac{\%}{32.7}$  ☐ at another community college in New York State (Delhi, Corning, Onodaga, Tompkins Cortland, etc.)? If this is your choice, check here if your permanent residence is outside Broome County. ☐ 7.9%

16.9 ☐ at SUNY Binghamton (Harpur)?

22.2 ☐ at another SUNY four-year school?

17.3 ☐ at a private or out-of-state college?

10.9 ☐ looking for a job (or working)

Thank you for your assistance. This information will be grouped with the responses of others so that it is totally anonymous. Copies of the report will be available by January 1977.

APPENDIX C - COPY OF QUESTIONNAIRE USED IN SURVEY

BROOME COMMUNITY COLLEGE

SURVEY TO STUDY EFFECT OF COLLEGE ON LOCAL ECONOMY

Part-time Faculty & Staff Questionnaire

(Full-time people should not use this form)

The College is collecting this information to show the economic impact of BCC on the local economy. A high response rate will make our figures more reliable. Your information will be grouped with the responses of other individuals so that it is totally anonymous.

1. How many extra dollars do you spend in Broome County from your part-time Broome Community College income?

\$ \_\_\_\_\_.

Thank you. Fold your response and place it back in your folder. Questions may be directed to Norm Herbert (ext. 5078) or to Dick Romano (ext. 5083) in the Social Science Department.

Results: We were looking for a dollar figure here but the data we got was not reliable since some just answered "all," while others gave a percentage figure. Therefore the figure that we used was the same one that was used for full-time faculty - 56%.

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